

## GENDER ANALYSIS OF PRODUCTION, POTENTIALS AND CONSTRAINTS OF *Thaumatococcus danielli* IN EKITI STATE

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### ABSTRACT

*Thaumatococcus danielli* popularly known as “Ewe eran” among the Yoruba ethnic group in Nigeria is an important crop due to its numerous economic and medicinal values. The study examined gender participation in the production, potentials, and constraints of *Thaumatococcus danielli* in Ogotun Ekiti, Ekiti State. Data was collected with the aid of a well structured questionnaire from 50 randomly selected respondents using snowballing technique. Tools of analysis include descriptive statistics and T-test. The result of the T-test showed that land preparation, planting and weeding were male dominated ( $P < 0.05$ ). However, harvesting, production of mats, bags and slippers, selling of mats and bags and leaves were female dominated ( $P < 0.05$ ). Result also revealed that almost all the respondents were aware of the usefulness of *Thaumatococcus danielli* in mat weaving, fancy bags and slippers. The major constraints faced in production were in the following order: seasonal variation > price instability > marketing. Research into improvement of craft production of *Thaumatococcus danielli* should be encouraged; development of more industrial raw materials from its fiber should also be encouraged. Producers should be brought to the awareness of the economic and ornamental potentials of *Thaumatococcus danielli* sweetness as sources of added value and income.

Key Words- *Thaumatococcus danielli*, Gender analysis, Potentials.

### INTRODUCTION.

Before and after the discovery of crude oil, agriculture remains the mainstay of Nigerian economy. Agriculture is a major activity in the rural areas. Even the people who engage in other non-agricultural occupation such as trades and craft, weaving, carving, tailoring and merchandising, still supplement their livelihood from farming. (Olubango, 2001). However, most income generating and livelihood activities are along gender lines in the rural areas in Nigeria.

Jigging, Samanta and Olawoye (1997) defined the term gender as it describes the socially determined, maintained and enforced roles of men, women including males and females assigned on the basis of sex. (In comparison sex denotes the physical and biological differences between males and females). Gender has proven to be an essential variable for analyzing the roles, responsibilities, constraints, opportunities incentives costs and benefits in agriculture.

As a social construct the term gender merely refers to the learned behavioral differences between men, women and youths. Gender analysis in agriculture refers to the determination of who does what, why, with what resources towards improving their overall production and the standard of living. It is the most effective tool to open up the farm household and understand its behavior (Poats 1985).

Rural women as well as men, through out the world are engaged in a range of production activities essential to household, and to the economic development of the society. The social and economic structure of Nigeria is changing with relevance of globalization. There is growing awareness of agricultural innovation and Technologies which have reconcile with the roles and responsibilities of women and men and introduce measure such as maternity leave, child and family care services and benefits. However the barriers to economic empowerment by women still persist (Adufe, 2005). In most part of the rural areas in Nigeria, division of labour within the household is gender-specific and according to Age and Sex. Men and women play prominent roles in agricultural production, and their contribution to the household food basket vary from one ethnic group to another also from one commodity food crop to the other.

*Thaumatococcus danielli* (Benn) Benth (miraculous berry) is a non timber forest species that has been contributing to the rural economy for a long time but whose potentials have not been fully exploited for community development. It is a multi-purpose perennial herb that offers a wide assortment of uses with its leaves, fruits, stalks and roots (Arowosoge, 2006). It is a naturally occurring plant growing in the wild. However, some

farmers are beginning to grow it commercially. It is processed into mats, bags, slippers and sponge. It is also used as ornamentals, fish traps, and roof thatching. Some research work has been done on the economic potentials of this miraculous berry and the analysis of the plant as a pulp. But little or no research work has been done on gender role in the planting, processing and utilization of the plant. This study is therefore being carried out to determine the role of each rural household member in the production, processing, and utilization of *Thaumatococcus danielli* constraints being faced in the production and the awareness of its uses was emphasized. The specific objectives of the study are to:

- (1) identify gender involvement in production, processing and utilization of the *Thaumatococcus danielli*
- (2) assess constraints being faced by respondents in the production of *Thaumatococcus danielli*.
- (3) determine the level of awareness of respondents on the utilization of the plant.
- (4) identify the social-economic and personal characteristics of the respondents.

Hypothesis: There are no significant differences in the role played by male, female and children in the production of *Thaumatococcus danielli*.

#### METHODOLOGY.

The area of study was Ogotun Ekiti town in Ekiti State. The town was purposively selected being the major producer of *Thaumatococcus danielli*. Ekiti State is situated entirely within the tropics. It is located between longitudes 4, 5, and 45<sup>0</sup> East of the Greenwich meridian and latitude 7, 15 and 8, 5<sup>0</sup> north of the Equator. It lies south of Kwara and Kogi State, East of Osun State and bounded by Ondo State in the East and in the south. Ekiti state has 16 local Government Councils. By 2006 census, the population of Ekiti State was 2,384,212, with the capital located at Ado-Ekiti.

The state enjoys a tropical climate with two distinct seasons. These are the rainy season (April-October) and the dry season (November-March). Temperature ranges between 21 and 28<sup>0</sup> C with high humidity. Ogotun Ekiti which is known as the mat weaving center was purposively selected. Respondents have been proportionately selected using snowballing technique.

Both qualitative and quantitative instruments were used for data collection (i.e. the use of interview and questionnaire) from 50 respondents consisting of producers, processors and marketers of *Thaumatococcus danielli*. Data collected included those on personal characteristics, awareness of the usage, gender involvement in production, processing, utilization and constraints. The data was analyzed using descriptive (frequencies, percentages, ranking) and t-test.

#### RESULTS AND DISCUSSION.

##### Personal Characteristics of Respondents.

Table 1 shows that majority(60%) of the respondents in the area of study were between ages 25-34 while 26% were less than 25 years of age. This result indicates that most of the respondent were in their active age and were therefore expected to be strong and agile. Moreover, they are likely to be opened to new ideas, Nabinta (1994) and Adebayo (2008) reported that farmers within the ages of 30-49 years adopt new ideas/technologies more easily and readily than older farmers. The results also shows that females (88%) dominated *Thaumatococcus danielli* production in the study area while male were just 12%.this may be due to the fact that *Thaumatococcus danielli* plant is mainly meant for women who takes care of children and they use the income for the payment of their children's school fees and other domestic expenses. Further analysis from Table1 also indicated that majority (68%) of the respondents were married and are expected to be responsible. The educational qualification of the respondents indicated that majority (62%) of the respondents had no formal education, and 20% has primary school education. This may hinder adoption of innovation in a way.

##### Socio-economic characteristics of respondents.

Table 2 shows the socio-economic characteristics of the respondents. The result indicated that 40% of the respondents interviewed do engages in several activities when it comes to *Thaumatococcus danielli* production i.e. they grow it on their farm and sell its products. This shows how important *Thaumatococcus danielli* is to the economy of the respondents. Reasons for being in the business as indicated by 74%were ready source of income and family commitment. The table also reveals that 46% of the respondents have been involved in *Thaumatococcus danielli* business for over 20 years. This indicates that it is more or less a hereditary business.

With this long years experience they must have been able adjust to changing condition and adopt the most efficient cultural practices in production, processing and utilization. Farm size plays an important role in farm success because it reflects the availability of capital, access to credit and even management ability. Table 2 also shows that 42% of the respondents have less than one acre of land for *Thaumatococcus danielli*. The major achievement of *Thaumatococcus danielli* respondents is found (52%) in the area of training of their children. Children education is the priority of people in Ekiti state of Nigeria.

#### Awareness of the use of *Thaumatococcus danielli*

Table 3 shows the awareness of respondents about the various uses of *Thaumatococcus danielli*. All the respondents are fully aware that *Thaumatococcus danielli* is used for mat weaving, fancy bags, slippers and used in packaging of cooked food like pap, *moin moin*, pounded yam e.t.c. this is corroborated by the work of Adeyeye in his study of economic analysis of in Ekiti state who stated that majority of the respondent are aware that *Thaumatococcus danielli* is used in the packaging of cooked food and mat weaving.. Also 98% respondents claimed that it is used in combination with other materials. *Thaumatococcus danielli* could be used in roof thatching, though this is no more common due to modernization which has led to the usage of roofing sheets as materials for roofing. Majority of the respondents (82%) are aware that *Thaumatococcus danielli* could be used as sweetener and flavour which they even affirmed on the course of In-depth interview that the fruit of *Thaumatococcus danielli* is sweeter than sugar. They use it in drinking *garri*, pap and tea. This is contrary to the view of Arowosoge (2006) that awareness about *Thaumatococcus danielli* as sweetener is low. The least awareness of the use of *Thaumatococcus danielli* is in its use as ornamental crops. The table shows that 14% of respondents are aware that *Thaumatococcus danielli* is used as ornamental plant. This is an indication that it could be planted around the house to beautify the environment.

#### Gender involvement.

Table 4 shows that 86%, 90%, 92% and 98% of the male are involved in land acquisition, land preparation, planning and chemical application while 80%, 66%, 70%, 84% of females are involved in processing into slippers and bags, production of mats, selling of leaves and bags. This finding indicates that both males and females are involved in various activities of *Thaumatococcus danielli* production, processing and marketing. This makes it to agree with the findings of Agwu (2005) in his study of attitude of farmers towards the fadama programme in Okigwe. Agricultural zone who stated that majority of adult males were more involved in application of herbicides 79.5% and land acquisition (59.6%) while processing of the produce and marketing of produce are in the hands of females and children. The t-test (Table 5) shows that there is significant difference in all the activities of males compare to their female counterpart in *Thaumatococcus danielli* production.

#### Constraints to involvement.

Constraints to involvement in producing, processing, utilization of *Thaumatococcus danielli* are shown in Table 6. Seasonal variation ranked first among the constraints. This is closely followed by both marketing and price instability. This is in tune with the result of Usman (2007) in the study of marketing of *Thaumatococcus danielli* in Oyo-state who reported that the major problem confronting the women was in seasonal variability of the *Thaumatococcus danielli* leaves.

#### CONCLUSION.

The study revealed that majority of the respondents was between the ages of 25 and 43 years and were females (88%). Majority (62%) had no formal education and 74% of respondents indicated that *Thaumatococcus danielli* was a ready source of income.

All the respondents were aware of the potential of *Thaumatococcus danielli* in mat weaving, bags, slippers and packaging of foods. Seasonal variation of the *Thaumatococcus danielli* raw products ranked first among the constraints encountered. Females were more involved in the producing, processing and marketing of *Thaumatococcus danielli*

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Table 1: Personal characteristics of the Respondents

Characteristics	Frequency	Percentage
Age (in Years)		
Less than 25	13	26
25-34	30	60
35-44	4	8
45-54	2	4
55-64	1	2
Total	50	100
Gender:		
Male,	6	12
Female,	44	88
total	50	100
Marital status		
Single	14	28
Married	34	68
Widowed	2	4
total	50	100
Religion		
Christianity	43	86
Islam	6	12
traditional	1	6
total	50	100
Educational attainment		
No formal education.		
Primary school education.	31	62
Secondary school.	10	20
OND/NCE.	7	14
Total	2	4
	50	100

Table 2: Socio- economic characteristics of respondents.

Characteristics	Frequency*	Percentage*
Do you grow	8	16
Do you sell	10	20
Do you market	12	24
All of the above	20	40
Why in the business		
Source of income	37	74
No other Job	1	2
Interest	1	2
All of the above	10	20
Years of involvement		
<5 years	4	8
5-10 years	13	26
11-15 years	4	8
16-20 years	6	12
> 20 years	23	46
Achievement		
Build house	4	8
Train children	26	52
Married more wives	1	2
All of the above	18	36
Farm size		
1 acre	21	42
1-5 acres	7	14
6-10 acres	2	4
Above 10 acres	5	10
Not applicable	15	30

\* All values are multiple responses.

Table 3: Awareness of the use of *Thaumatococcus daniellii*

Activities	Frequency	Percentage
Used as mats	50	100
Used as fancy bags	50	100
Used as sweetners and flavour	41	82
Used as sponge	46	92
Used in combination with other materials as roof thatching	49	98
Use for packaging cooked pap	50	100
Used in preserving Kola	41	82
Used as food supplements to some ruminants	46	92
Use as traditional medicine	27	54
Used as ornamental crops	7	14

All values are multiple responses

Table 4: Gender involvement.

Activities	Male	Female	Children	Both
Land acquisition	43(86)	5(10)	1(2)	1(2)
Land preparation	45(90)	3(6)	-	2(4)
Planting	36(72)	6(12)	-	8(16)
Weeding	32(64)	4(8)	3(6)	11(22)
Chemical application	49(98)	1(2)	-	-
Harvesting	34(68)	-	1(2)	15(30)
Production of mat	10(20)	33(66)	1(2)	6(12)
Production of bags	40(80)	-	2(4)	8(16)
Processing into slippers	1(2)	40(80)	2(4)	8(16)
Selling of mat	-	45(90)	-	5(10)
Selling of bags	-	42(84)	-	8(16)
Selling of leaves	-	35(70)	-	15(30)
Usage of roofing	42(84)	5(10)	-	3(6)
Use as indoor plant	47(94)	1(2)	-	2(4)
Use for fish traps	48(96)	2(4)	-	-
Use as sponge	-	33(66)	1(2)	16(32)

All values are multiple responses, Figures in parentheses are the percentages

Table 5: T-test value of Gender involvement.

Activities	T-value	Decision
Land acquisition	8.09	S
Land preparation	7.58	S
Planting	6.83	S
Chemical application	2.45	S
Production of mat	11.88	S
Production into slippers and bags	9.89	S
Selling of bags	10.26	S
Selling of leaves	14.0	S

P = (<0.005)

Table 6: Constraints to involvement in *Thaumatococcus daniellii*

	Severity					
Activities	Fre	%	N.S	S	VS	Ranking
People preferring land for arable crops planting <i>Thaumatococcus danielii</i>	19	38	36	8	6	70- 7 <sup>th</sup>
Land availability	3	6	48	2	-	52-9 <sup>th</sup>
Difficulty of harvesting	18	36	34	10	6	72-6 <sup>th</sup>
Health hazard	16	32	34	10	7	74-5 <sup>th</sup>
Transportation	25	50	27	16	7	80-4 <sup>th</sup>
Marketing	29	58	22	21	7	85-2 <sup>nd</sup>
Seasonal variation	37	74	16	23	11	95-1 <sup>st</sup>
Price instability	30	60	20	25	5	85-2 <sup>nd</sup>
Cultural/social belief/norms.	10	20	45	3	2	57-8 <sup>th</sup>

Fre –Frequency, %- Percentages, NS-Not Severe, S-Severe, VS- Very severe.

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